

WHAT IS CLAIMED IS:

1. A rolling bearing for a turbomachine to support a first shaft rotatably relative to a second shaft, and comprising:

5 a plurality of rolling elements engaged between an inner annular ring mounted on the second shaft and an outer annular ring mounted on the first shaft, an inside face of said outer ring and an outside face of said inner ring defining between them an annular space;

10 an oil film formed on an annular contact surface between said outer ring and said first shaft and defined laterally by at least two annular sealing rings;

15 at least one duct passing through said inner ring, said duct communicating with an oil feed circuit and opening out into an inner race for said rolling elements in order to lubricate them; and

20 at least one additional duct passing through said inner ring, said additional duct communicating with said oil feed circuit and opening out to the outside of the inner race in order to feed oil through said outer ring to said oil film under the effect of the centrifugal force generated by the rotation of said second shaft;

25 wherein said outer ring includes an annular shoulder projecting radially towards the inside of said annular space, said shoulder including at least one channel opening out substantially in register with said additional duct and opening out into said oil film.

30 2. A bearing according to claim 1, wherein said annular shoulder presents radial height that is at least twice the radial height of said outer annular ring.

35 3. A bearing according to claim 1, wherein the oil feed circuit includes at least one cavity formed in the second shaft in an annular contact surface with the inner ring, said at least one cavity being fed with oil from an

injection nozzle and said at least one duct opening out into said at least one cavity.

4. A bearing according to claim 3, wherein said oil feed circuit further comprises an additional cavity formed in the second shaft in its annular contact surface with the inner ring, said additional cavity being fed with oil from said at least one cavity with which it communicates, and said at least one additional duct opening out into said at least one additional cavity.

5. A bearing according to claim 1, wherein said at least one channel of the annular shoulder opens out into the oil film via a homogenizing groove formed in the outer ring in its annular contact surface with the first shaft.

6. A bearing according to claim 1, wherein the first shaft is a trunion of the shaft line of the high pressure spool of the turbomachine, and the second shaft is a trunion of the shaft line of the low pressure spool of the turbomachine, the rolling elements being rollers.